

Experience and design methods: cross-dressing and border-crossings

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Introduction

We are pleased to present this special issue on experience and design methods. This issue has its origins in a workshop organised by Ron Wakkary, Thecla Schiphorst and Jim Budd (2004), titled ‘Cross-dressing and border crossing: exploring experience methods across disciplines’, held as part of the ACM SIGCHI 2004 conference in Vienna, Austria. The workshop was to all appearances among the strangest gatherings at SIGCHI 2004. Blindfolded researchers were spied wandering the fluorescent-lit lower concourse of the Austria Center in Vienna, or dashing from table to food-court table in a tag-like game whose rules remained obscure. But the playful, seemingly aimless movement of the participants belied a serious purpose. The practice of designing interactive objects, environments and systems has outgrown its roots in Human Computer Interaction (HCI), with its residual load of cognitive science. We engage in interactive experiences out of choice, in search of the pleasures of the mind and senses we have hitherto found in performance, art or our experience of architectural spaces. For the workshop organisers and participants, a provocation is required: hence, cross-dressing, the opportunity to try on new roles and experience design methods coming from art and design—disciplines often marginalised by the research community.

The workshop received an overwhelming response and unfortunately only about fifteen percent of the position papers submitted were accepted. The

workshop included participants across and within human-computer-interaction (the academic discipline of the conference), including performance, visual art, education, computing science and interaction design. The participants were research practitioners who in the workshop shared design approaches and projects. This included presentations and body/brain-storming around the concepts; combining playful engagement with opportunities to reflect upon the emergent themes. The goal of the workshop was to explore unique methodological frameworks for designing technologically-mediated experience. What follows in this issue is a selection of papers from the workshop participants. Each paper addresses the need to make discursive, evaluative and ultimately more manifest pleasurable, puzzling, richly ambiguous and essentially more human aspects of experience within their designs.

Experience In design

As designers of interactive systems we find ourselves stretching the limits of methodological practices that enable us to explore, build, communicate and prototype experience. It seems that addressing human experience requires a ‘re-dressing’ of design practice. Domains such as performance, dance, interaction design, industrial design, visual art and education each embody knowledge and enact rigorous methodologies for constructing experience. Each of these domains defines experience, experience qualities and attributes, and defines affordances for enacting (and re-enacting)

experience as a fundamental methodological tool in the respective discipline.

At the intersection of HCI and design, Terry Winograd identified a design practice whose outcome and focus was on the perceptual and psychological aspects

of human experience by rooting interaction design equally in graphic design, psychology, communication, linguistics and computing science. (Winograd 1997)

A key genesis point in the evolution of 'experience' as a design concept is the work in the 1930s of the industrial designer Henry Dreyfuss (1967). Dreyfuss' work in ergonomics lead to the publication of the *Measure of man*, an extensive database of human measurement to facilitate the design of products tailored to a 'standardised' human body. In the late 1960s ergonomics split into the related science, engineering and kinesiology-based field of human factors, the political and social movements in Scandinavia that became known as participatory design (Ehn 1992), and the design methodology of user-centred design (Nielsen 1993, Norman 1988). Design experience was seen in surprisingly different lights, one functional the other social and political. In the early 1970s, the democratic social movements lead to concepts of increased participation and assertion of user experience within the design process itself, such as participatory design and in the anti-modernist notion of pattern languages by the architect and urban planner Christopher Alexander (Alexander, Ishikawa and Silverstein 1977). The increasingly critical role of the user in these design processes contributed significantly to the evolution of design. At the same time the phenomenon of space, time and environmental design—clearly the domain of architecture—also began to play an ever-increasing role in design. For example, the ethnographer Edward T. Hall helps us to understand the participatory role of people in communication environments and spaces (Hall 1976). Enabling the audience

experience was also a key goal of theorists and practitioners of the fields of performance and theatre, namely Vsevolod Meyerhold (Cooke 1983), and later the work of theorist and theatre director Jerzy Grotowski (1968) and Augusto Boal (1979). This tradition directly informed the concepts of interactive design from the early work of Norman Bel Geddes (Marchand 1995) to today's interactive technology experiences and environments (Dodsworth 1998, Murray 1997).

Recently, HCI theorists and researchers have identified issues of 'context', 'situation' and 'embodied experience' that have strained the traditional theories of HCI. As Nardi puts it,

we are beginning to feel a theoretical pinch, however—a sense that cognitive science is too restrictive a paradigm for finding out what we would like to know. (Nardi 1996)

The understood need is to move the theoretical trajectory of HCI from a reductionist understanding of human cognition toward an understanding of situated human activity. Carroll writes:

We do not now (and in fact may never) understand human activities in enough detail to merely list the attributes computer systems would have to incorporate in order to meet these requirements: Precisely what kind of computer will help people learn microbiology, choose a new job, or relax? Indeed, human society and psychology develop in part as a consequence of the contemporary state of technology, and technology is precisely what is running ahead of our understanding so rapidly now. Thus, we have little prospect of developing final answers to questions about the nature of human activity—certainly not at the level of detail that would provide specific guidance to designers. Our best course is to develop rich and flexible methods and concepts, to directly incorporate descriptions of potential users and the uses they might make of an envisioned computer

system into the design reasoning for that system - ideally by involving the users themselves. (Carroll 1995)

In response to the rigidity of cognitive science, ethnographic and scenario-driven methods have begun to take hold in HCI practice. Further along in this direction, an emerging set of 'context-based' theories for HCI have adapted ideas from an even wider spectrum of psychological, social, political and philosophical theories based on understanding human activity (Dourish 2001, Nardi 1996, Nardi and O'Day 1999). Such attention to the richness of context and human experience has emerged over the years in HCI theory, less so with practical approaches for the designing of interactive systems.

Seeds for experience methods

Not surprisingly, use experience or user experience is a central concern in several of the contributions in this issue. Per Linde et al view interaction design as a constant re-evaluation of place, material and methods in the service of qualities of use that differ from traditional HCI criteria of efficiency, ease of use and learning. Rather qualities of use in interaction design incorporate aesthetic experience and socially meaningful activity. This paper explores the quality of experience as presence in space and materiality that can be perceived as place. The paper explores a range of design methods from tangible computing games, to improvisation and performance, to augmented mixed media as a presence-making tool. Jacucci and Isomursu add to the approaches of participatory design and ethno-methodology with a concept of design happenings. Drawn from the art movement of happenings in the 1960s of such artists as Vito Acconci and Alan Kaprow, the authors propose design happenings as a resource for experience and its expression in order to more directly capture use experience. Gromala and Shaw address the direct

experience of pain and the need for tools that account for its subjective aspects such as type, intensity and duration. They suggest a method for communicating highly subjective experiences.

In addition to tools and use experience, other authors addressed the role of existing design methodologies. Pamela Jennings recast the traditions of computer-supported collaborative work (CSCW) as CSCP, or collaborative play, as a means of attacking complex design problems in her *Constructed Narratives* project. Her paper provides an account of this approach and delves into the role of interdisciplinary collaboration inherent to such an approach. PARC researchers Allison Woodruff and Paul M. Aoki discussed the use of conversation analysis techniques in the context of designing an electronic guidebook for a historic home and extend its use in to social and mobile audio spaces. Eva Hornecker meditated upon the relationship between didactic/facilitation methods in learning and the designing of interactive systems and spaces in light of experience design. Artist Sarah Rubidge and composer Alistair Macdonald present their Sensuous Geographies installation that examines the benefit of our aural experience and the role of performance and audience in interactive installations. Other participants, whose papers are not reproduced here, but who added immeasurably to the workshop, included Phoebe Sengers, Kirsten Boehner, Jofish Kaye and Maria Håkansson.

Like the workshop, the aim of this special issue is to plant the seeds of cross-disciplinary dialogue and to cross boundaries, assuming other roles in order to experiment methodologically and to establish a new common knowledgebase aimed at design and human experience. We believe these papers succeed in planting new ground for new research and practice.

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